

In the Specification:

Please replace the paragraph beginning on page 17, line 25 through page 18, line 14 with the following new paragraph:

An aliquot of lung tumor tissue was solubilized in a urea cocktail (per liter:8M urea, 20 ml Nonidet P-40 surfactant, 20 ml of ampholytes (pH 3.5-10), 20ml of 2-mercaptoethanol and 0.2mm of phenylmethylsulfonyl fluoride (PMSF) in distilled demineralized H₂O) and 40 micrograms of solubilized protein was loaded onto a carrier ampholyte based (pH 3.8) tube gel and separated in the first dimension for 12,000 volt hours. Following an equilibrium step, the first dimension tube gel was loaded onto a cassette containing the second dimension gel. Electrophoresis in the second dimension was complete when the tracking dye present in the equilibration buffer reached the opposite end of the second dimension gel, in relation to the first dimension gel. Following electrophoresis the separated proteins were transferred onto a polyvinylidene fluoride (PVDF) membrane (millipore). The membrane was preincubated with a blocking buffer and subsequently incubated with serum obtained from a subject with lung adenocarcinoma, which was diluted 1:100 in the buffer solution (Tris-buffered-saline containing .01% ~~between~~ TWEEN 20 and 1.8 gm/100 ml non-fat dry milk), for 1 hr at room temperature. After three washes with a buffer solution, the membrane was incubated for 1 hr with a horseradish peroxidase conjugated rabbit anti-human antibody (available from Amersham). Reactive proteins were revealed by a chemiluminescent technique. The sera sample from the cancer subject was found to be reactive against a set

of S100 proteins identified by microsequencing as S100-A9 and calgizzerin (Figure 4A-B).